Appendix D AFRTS Satellite Information

Current as of Monday, Sept 16, 2002

AFRTS

INTELSAT 802 (Japan and Korea Only)

Location: 174 degrees East
Transponder Antenna polarization: Vertical
Receiver Setting Polarization: "H" Horizontal
Ku Band Downlink Frequency: 11.6380GHz
Band: Low Ku/L
L-Band: 1888 MHz[*] (using 9.750 GHz LNB Frequency)
L-Band: 1638 MHz[*] (using 10.00 GHz LNB Frequency)
Symbol Rate: 28.0000 MS/s
FEC Rate: 3/4
52.8 dBW EIRP
Network ID 1
Coverage Map: http://www.intelsat.com/globalnetwork/coveragemaps/802@174.asp#
(spot 1 zone beam covering Japan and Korea)

INTELSAT 701 (Pacific Ocean Region)

Location: 180 degrees East
Transponder Antenna Polarization: LHCP
Receiver Setting Polarization: "H" Horizontal
Band: C/L Band
C-Band Frequency: 4.1735 GHz
L-Band Frequency: 976.5 MHz
Symbol Rate: 3.6800 MS/s **(DTS Signal)**
FEC Rate: 2/3
EIRP: 29.0 dBW
Network ID 5
Coverage Map: http://www.intelsat.com/globalnetwork/coveragemaps/701@180.asp#
 (global)

INTELSAT 707 (South America, Africa, and Atlantic Ocean Region)

Location: 359 degrees East
Band: C/L Band
Transponder Antenna Polarization: RHCP
Receiver Setting Polarization: "H" Horizontal
C-Band Frequency: 4.1750 GHz
L-Band frequency: 975 MHz
Symbol rate: 28.0000 MS/s
FEC rate: 3/4
29 dBW EIRP
Network ID 3

Coverage Map: http://www.intelsat.com/globalnetwork/coveragemaps/707@359.asp
(global)

Telstar-5 (United States)

Location: 97 degrees West
Band: C/L Band
C-band frequency: 4.060 GHz, HP
L-Band frequency: 1090 MHz
Symbol rate: 28.0000 MS/s
FEC rate: 3/4
EIRP: 37 dBW
Network ID 9
Coverage Map (not-official): http://www.geo-orbit.org/westhemipgs/ft5p.html

HotBird 4 (Europe)

Location: 13 degrees East
Band: Low Ku/L
Transponder Antenna Polarization: Vertical
Receiver Setting Polarization: "H" Horizontal
Ku Band Downlink Frequency: 10.775 GHz
L-Band/LO frequency: 1025 MHz* (9.750 MHz LNB Frequency)
Symbol rate: 28.0000 MS/s
FEC rate: 3/4
EIRP: 50.0 dBW
Network ID 6
Coverage map: not available

Direct To Sailor (DTS)

INTELSAT 701 (Pacific Ocean)

Location: 180 degrees East
Band: C/L Band
Transponder Antenna Polarization: LHCP
Receiver Setting Polarization: "H" Horizontal
C-Band frequency: 4.1735 GHz
L-Band frequency: 976.5 MHz
Symbol Rate: 3.6800 MS/s
FEC rate: 2/3
EIRP: 29.0 dBW
Network ID 5
Coverage map: http://www.intelsat.com/globalnetwork/coveragemaps/701@180.asp
(global)

INTELSAT 906 (Indian Ocean and Persian Gulf)

Location: 64.1 degrees East
Band: C/L Band
Transponder Antenna Polarization: LHCP
Receiver Setting Polarization: "H" Horizontal
C-Band frequency: 4080 MHz
L-Band frequency: 1070 MHz
Symbol Rate: 3.6800 MS/s
FEC Rate: 2/3
EIRP: 29.0 dBW
Network ID 7
Coverage map: http://www.intelsat.com/globalnetwork/coveragemaps/906@64.asp (global)

New Skies NSS-7 (Atlantic Ocean and Mediterranean Sea)

Location: 338.5 degrees East
Band: C/L Band
Transponder Antenna Polarization: LHCP
Receiver Setting Polarization: "H" Horizontal
C-Band frequency: 4127 MHz
L-Band frequency: 1023 MHz
Symbol Rate: 3.6800 MS/s
FEC Rate: 2/3
EIRP: 30.5 dBW
Network ID 6
Coverage map: http://www.newskies.com/PBFleet/fleet7new.asp (global)

AMC-1 (Very large domestic dishes only)

Location: 103 degrees West
Band: C/L Band
Transponder Polarity: Horizontal
C-Band frequency: 4.065.75 GHz
L-Band frequency: 1.084.25 GHz
Network ID 9
Coverage map: http://www.ses-americom.com/satellites/amc-1.html

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[*] **Important note on LNB frequencies**: all C-band LNB's have a local oscillator (L.O.) frequency of 5.150 GHz but Ku-band LNB's may come in many different frequencies typically 9.750 to 12.75 GHz. This means that if you're attempting to watch a Ku-band service you need to set the decoder's frequency using a bit of simple math. The formula to set the Ku-Low/Single L.O. frequency on the AFRTS decoder is the downlink frequency minus the L.O. frequency. As an example the downlink frequency for the IntelSat 802 satellite serving the Japan and Korea Direct to Home service area is 11.6380 GHz. An LNB with a local oscillator frequency of 10.000 GHz would give a Ku Low/Single L.O. frequency of 1638 MHz (1.638 GHz) by working the math problem 11.16380 – 10.000 = 1.638. The Ku-band satellite serving the European service area is HotBird 4 at 13 degrees east and it has a downlink frequency of 10.775 GHz. Connecting an LNB with a local oscillator frequency of 9.750 would result in a receiver frequency of 1025 MHz (10.775 – 9.750 = 1.025 GHz which is 1025 MHz).